No. 9900348

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Paragon Seed, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

LETTUCE

'North Star'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this twenty-fifth day of August, in the year two thousand and five.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions.*

FORM APPROVED - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a).

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
Paragon Seed, Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER
Exp. 669.96

3. VARIETY NAME
North Star

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
507 Abbott Street
Salinas, California 93901

6. TELEPHONE *(include area code)*
831-753-2100

8. FAX *(include area code)*
831-753-1470

FOR OFFICIAL USE ONLY

PVPO NUMBER: 200318

FILING DATE: 6/23/99

FEES RECEIVED
FILING AND EXAMINATION FEE: $ 2,450.00
DATE: 6/23/99
CERTIFICATION FEE: $ 682.00
DATE: 7/25/2005

7. GENUS AND SPECIES NAME
Lactuca sativa L.

8. FAMILY NAME *(Botanical)*
Compositae

9. CROP KIND NAME *(Common name)*
Lettuce

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.) (Common name)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
California

12. DATE OF INCORPORATION
March 7, 1994

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Victor Heintzberger
P.O. Box 1906
Salinas, California 93902-1906

14. TELEPHONE *(include area code)*
831-753-2100

15. FAX *(include area code)*
831-753-1470

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of the Variety
d. ☒ Exhibit D. Additional Description of the Variety
e. ☒ Exhibit E. Statement of the Basis of the Applicant's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository)*
g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)?*
☐ YES *(If "yes," answer items 18 and 19 below)* ☒ NO *(If "no," go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☒ YES *(If "yes," give names of countries and dates)* ☐ NO
California U.S.A Date of first dale : June 30, 1998

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*		SIGNATURE OF APPLICANT *(Owner(s))*	
NAME *(Please print or type)* Victor Heintzberger		NAME *(Please print or type)*	
CAPACITY OR TITLE President	DATE 06/10/99	CAPACITY OR TITLE	DATE

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Exhibit A

Origin and Breeding

The objective of this lettuce development project was to create a green leaf lettuce with Corky Root Rot resistance (cor cor) gene. Corky Root is caused by the bacterium *Rhizomonas suberifaciens* (gen.nov.,sp.nov.)(van Bruggen et al., 1990) HortScience 29(4):335-336. 1994. The disease is an economically important lettuce disease in California coastal lettuce districts and in the muck-soil districts in eastern and midwestern states and Florida.

To achieve this goal, the leaf lettuce P.I. 171669 was selected as the pollen parent. P.I. 171669 is a Corky Root Rot resistant leaf accession from Turkey, as identified by Dr. Luis Sequeira in "Resistance to Corky Root Rot in Lettuce". The Plant Disease Reporter, September, 1970, Vol 54, No. 9, pp 754-758.

The green leaf variety Waldmann's Green was selected as the (female) receptor plant. Waldmann's Green has long been the industry standard for green leaf lettuce, however, Waldmann's Green is susceptible to early bolting, tipburn, and is susceptible to Corky Root Rot.

A sample of P.I. 171669 (acc. # 011 Paragon) and Waldmann's Green (acc.# 030 Paragon) were obtained from the U.S.D.A. seed storage facility in Salinas, California in April, 1994. Seeds were sown near Corcoran, California in April, 1994, and plants were grown to flower stage for cross pollination. Before crossing, all plants were carefully screened for slow bolting characteristics, darkest green color, and frilled leaf type. Plants noted with reflexed involucre, spined midribs, early bolting, tipburn, and yellowing were eliminated.

In July, 1994, crosses were made using the technique outlined by Ryder and Johnson in "Mist Depollination of Lettuce Flowers", published in HortScience, Vol. 9(6), 1974.

F1 seeds were removed from the maternal plants in August of 1994 and designated :

i.d	seed color
171669-1	bs
171669-5	bs
171669-6	bs

Exhibit A

Origin and Breeding History

In December, 1994, F1 seeds of three families were seeded in a four inch deep greenhouse flat filled with approximately 30 % "Blanco" field soil and 70 % sand. Flats were then grown in a greenhouse near Salinas, California and irrigated with the leachate of "Blanco" field soil to capture the *Rhizomonas* bacterium responsible for Corky Root of Lettuce. Soil from a lettuce field with known Corky Root Rot was saved in the fall of 1994 for this purpose. At approximately the five-leaf stage, plants were gently removed from the soil mixture and roots were evaluated for discoloration according to the index outlined by Sequeira. Plants with roots rated 1 (most resistant) were transplanted to two-gallon pots filled with a local field soil/hay mixture and grown to seed maturity. Seed was harvested from the following lines :

i.d.	Seed Color
171669-5-2-G1	BS
171669-5-4-G1	BS
171669-5-4-G2	BS
171669-5-4-G3	BS
171669-5-4-G4	BS
171669-5-4-G5	BS
171669-5-4-G6	BS
171669-5-5-G1	BS
171669-6-7-G1	BS
171669-6-8-G1	BS
171669-6-8-G2	BS
171669-6-8-G3	BS
171669-6-8-G4	BS
171669-6-9-G1	BS
171669-6-9-G2	BS
171669-6-9-G3	BS
171669-6-9-G4	BS
171669-6-9-G5	BS
171669-6-9-G6	BS

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Exhibit A

Origin and Breeding History

F2 seed of these plants was planted near Corcoran, California in May of 1995.

Concurrent to this seed production, trials of these lines were planted and evaluated in the Salinas Valley of California for :

Corky Root Resistance
Slow bolting character
Tipburn resistance
Darker green color than Waldmann's Green

In these field trials were identified lines with a high level of Corky Root resistance. Segregation was also noted for leaf color, leaf thickness, and bolt tolerance.

At time of seed harvest in September, 1995, specific lines were highlighted for additional individual plant selections due to high ratings in the field trials. Prior to seed harvest, plants were screened for spined midribs, reflexed involucres, pale (yellow) color, early bolting and non-frilled leaf type. This plant type was eliminated from the breeding program.

Single plant selections and field trials in 1996 continued the search for desirable plant types and notable progress to uniformity to type. On April 28, 1997, two lines were identified in a field trial that met the objectives of the project.

The lines were designated Exp. 54 and Exp. 669.96 (breeding line 171669-69-M, DE-45/96) at that time with the intent to produce a small quantity of seed for advanced trials. Also, field trials in corky root infested soils verified that the two lines carry the single recessive (cor cor) gene that imparts resistance to Corky Root Rot.

A small, experimental lot of seed of Exp. 54 and Exp. 669.96 (North Star) was produced in the summer of 1997 near Corcoran, California. An occasional smooth leaf type plant similar to the parental P.I. line was noted. At this early stage it was not possible to numerically quantify the frequency of occurrence of this plant type other that it did exist, and it was removed from production.

The two lines Exp. 54 and Exp. 669.96 are similar in leaf type; however, Exp. 669.96 is slightly larger in frame size, and slightly darker in leaf color. The two lines are similar in bolting tolerance, maturity, and level of Corky Root Resistance. Trials in the Salinas Valley of California during the summer of 2002 and 2003 indicate that North Star is better adapted to carton lettuce, whereas Ventana is better adapted to the food service whole leaf application for a high leaf count recovery of tipburn free / similar sized leaves.

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Exhibit A

Origin and Breeding History

In the summer of 1998, a second crop of Exp. 54 (Ventana) and Exp. 669.96 (North Star) were produced by Paragon Seed, Inc. near Corcoran, California. No off types were noted in this production. Growouts of the seed production were conducted in Yuma, Arizona in the late fall of 1998. Exp. 54 (Ventana) and Exp. 669.96 (North Star) were uniform to type and distinct from the parental lines Waldmann's Green and P.I. 171669.

North Star (Exp. 669.96) was developed using traditional cross pollination techniques, and five generations of selfing to establish a stable, bolt tolerant, corky root resistant, tipburn resistant, dark green, thick leafed green leaf lettuce.

Seed production of North Star in 1999, 2000, 2001, 2002, and 2003 have resulted in crops of a uniform and stable variety.

No variants have been observed in the past five years of seed production.

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Exhibit B

Novelty Statement North Star

North Star is a unique and distinct variety of green leaf lettuce which combines the single recessive (*cor cor*) gene for Corky Root Rot resistance of the Plant Introduction PI 171669 and the leaf type of Waldmann's Green, an established standard green leaf lettuce variety.

North Star most closely resembles the variety Ventana, however, North Star differs from Ventana in the following characteristics:

1. Frame size is larger than Ventana (31.4 cms vs. 30.5 cms)
2. Heavier head weight (403 grams vs. 378 grams)
3. Darker green color based on paired comparisons at two or more localities and growing seasons (141A vs.141B) using the Royal Horticultural Society Colour Charts.
4. Longer stem elongation (1.6 inches vs. 1.4 inches)
5. Date of first flower (North Star 79 days vs. Ventana 82 days) under seed production conditions near Corcoran, California, 1997.
6. Both varieties contain the (*cor cor*) gene for Corky Root Rot resistance.

North Star differs from Waldmann's Green in the following characteristics:

1. Waldmann's Green is susceptible to Corky Root Rot.
2. North Star has a darker green leaf color (RHS 141A vs.143A) based on paired comparisons at two or more localities and growing seasons.
3. Slower bolting (Waldmann's Green 51 days vs. North Star 62 days to seed stem elongation.)
4. Date of first flower (Waldmann's Green 66 days vs. North Star 79 days.
5. The root structure of North Star is very fibrous, more similar to the P.I. parent vs. the dominant taproot structure of Waldmann's Green.

North Star differs from PI 171669 in the following characteristics:

1. North Star involucres are non-reflexed, whereas PI 171669 involucres are reflexed.
2. The midribs of PI 171669 are segregating for the *spiny* gene (*Sp*, Durst) The mid rib of North Star is non-spined.
3. The leaf color of the PI line is segregating from light green to dark green
4. The PI line is extremely variable in days to bolt and days to first flower
5. The leaf margin of North Star is incised and dentate, more similar to Waldmann's Green than PI 171669.

Paragon Seed, Inc. **Wellton , Arizona** **October, 2003**

ROYAL HORTICULTURAL CHART MEASUREMENTS

North Star	141 A
Ventana	141 B
Tehama	143 B

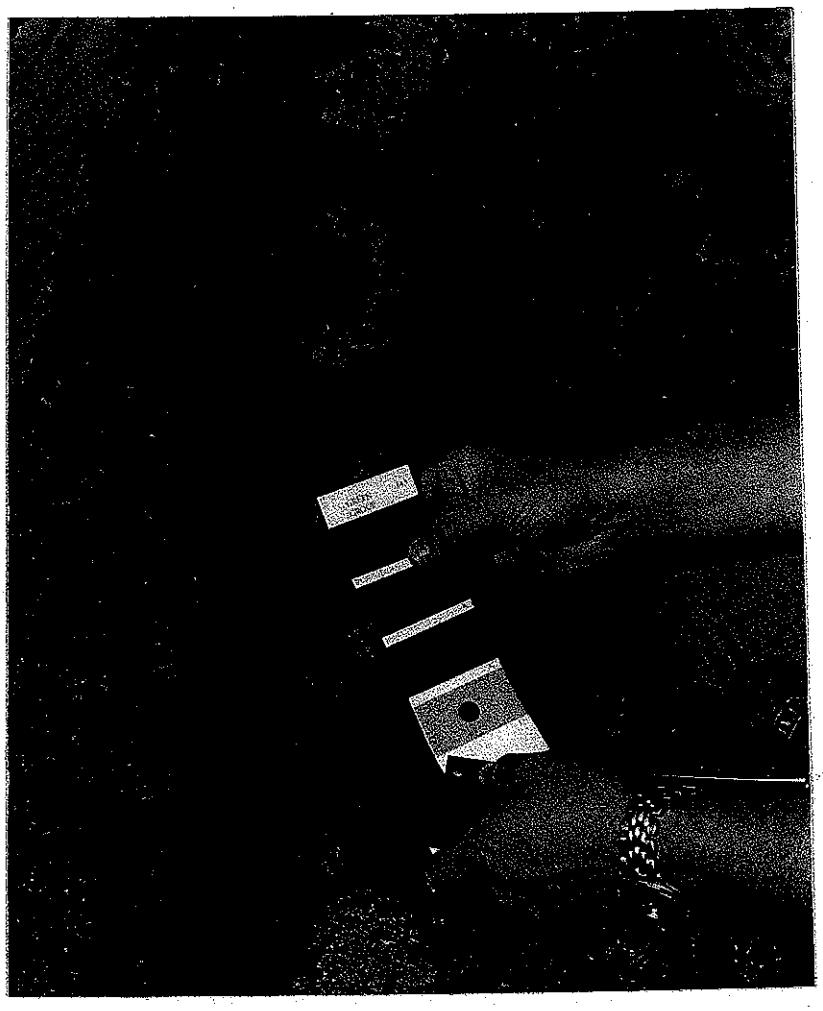
Color Measurements were evaluated during the summer and fall of 2003 in the Salinas Valley of California and Yuma, Arizona. In the following trials, we sampled, measured, and verified the claim of the above color chip readings for Ventana and North Star. Please note that some slight differences in color and reflectance can occur as a function of irrigation, fertility, and maturity.

Area : Salinas Valley

Ranch	Plant	Observation
Williams Ranch	January 28, 2003	May 01, 2003
Morosolli	May 19, 2003	July 22, 2003
Rio Farms	June 28, 2003	August 25, 2003

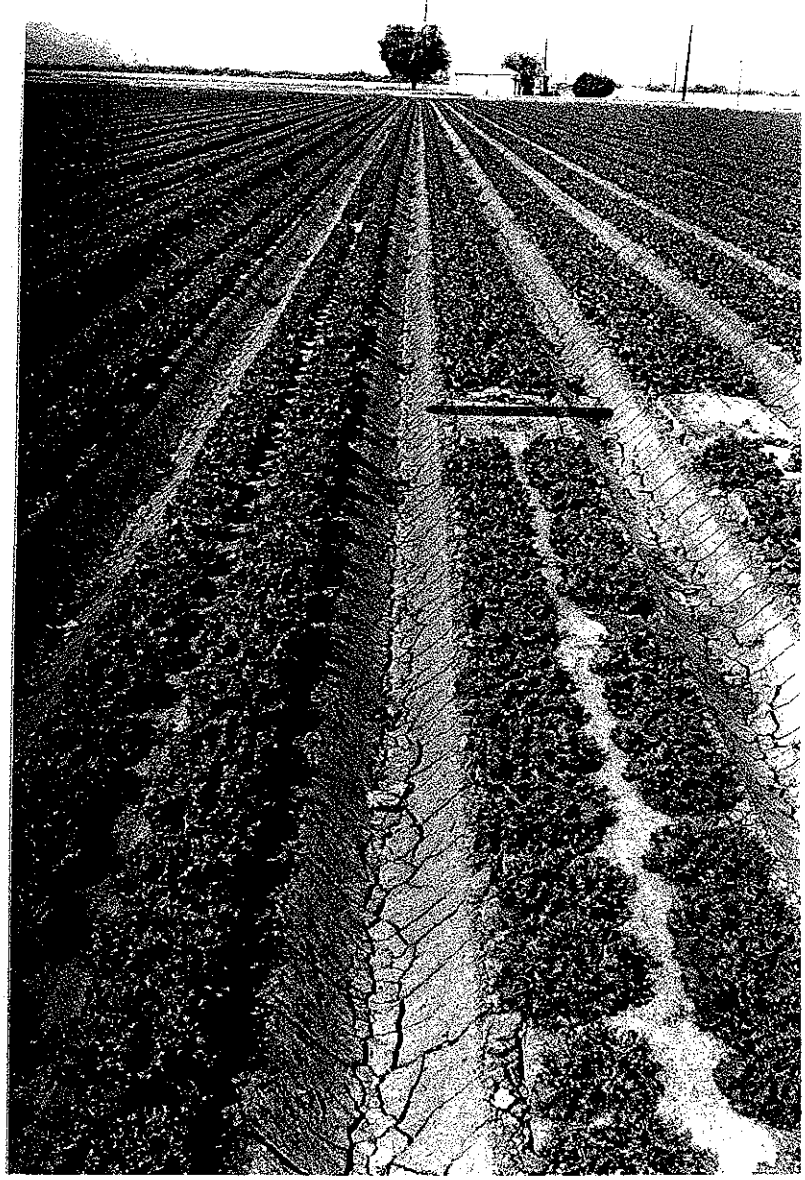
Area : Yuma, Arizona

Ranch	Plant	Observation
Pasquinelli	September 23, 2003	October 27, 2003



SPLIT FIELD PLANTING

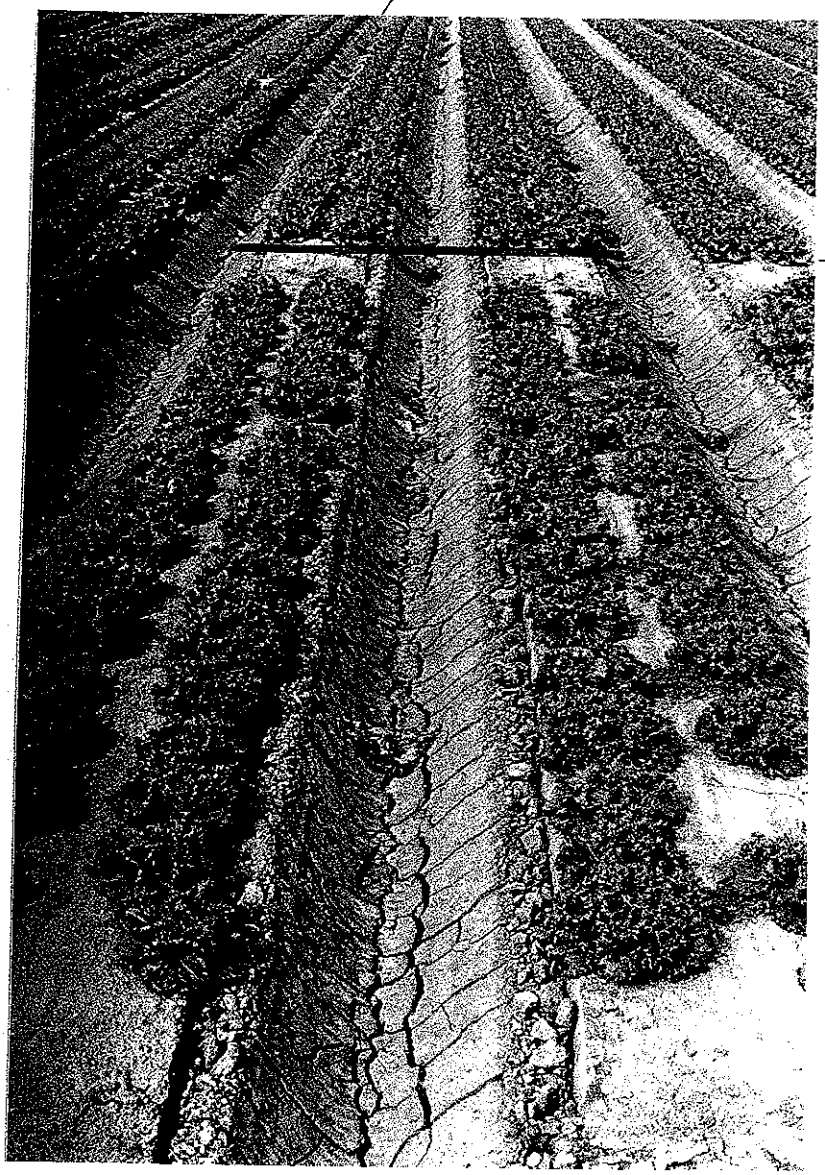
NORTH STAR ON LONG BEDS
TEHAMA BEHIND TRIAL



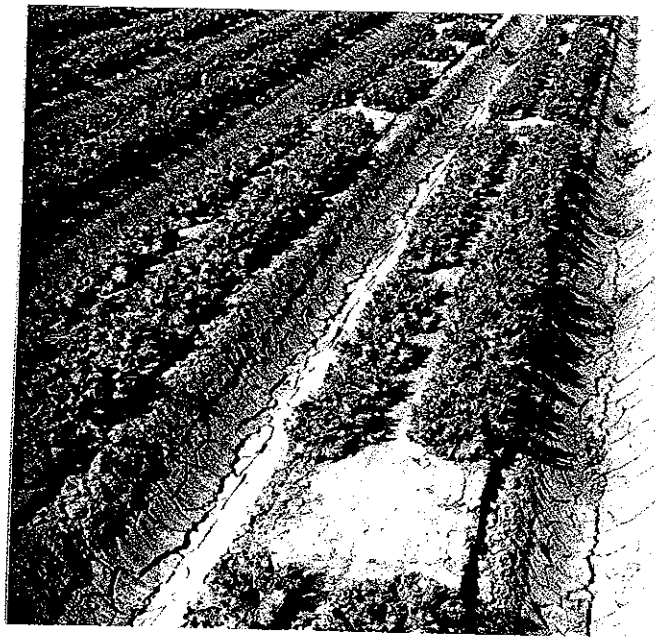
NORTH STAR VENTANA

Paragon Seed, Inc. **Yuma, Arizona** **October, 2003**

TEHAMA FIELD PLANTING



VENTANA NORTH STAR



TWO STAR

VENTANA

TEHAMA VENTANA

9900348

Exhibit B

Novelty Statement North Star

North Star differs from Tehama in the following characteristics:

1. Frame size of North Star is smaller than Tehama (31.4 cm. vs. 38.1 cm)
2. North Star leaf color is lighter than the leaf color of Tehama based on paired comparisons at two or more localities and growing seasons (141A vs. 143B)
3. North Star is lighter in head weight than Tehama (403 grams vs. 456 grams)
4. North Star was 60 days to seed stalk elongation during the 2002 seed production season in the San Joaquin Valley of California whereas Tehama was 62 days to seed stalk elongation.
5. North Star and Tehama both contain the (*cor cor*) gene for Corky Root Rot resistance.
6. North Star is best adapted for early fall and late spring harvest in the desert southwest. Tehama is best adapted to late fall and winter harvest in the desert southwest. Under winter harvest conditions, North Star will not make marketable weight or size.
7. Cold weather also induces heading in North Star, whereas Tehama remains open (non-heading) in cold weather.
8. In the coastal areas, Tehama can be harvested in the spring, summer, and fall, from April through October. North Star is best adapted for harvest during the warmer summer months, from late June through September.
9. North Star is a sister line to Ventana. Ventana is the pollen parent for Tehama.

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY
LETTUCE *Lactuca sativa*

NAME OF APPLICANT (S): Paragon Seed, Inc.

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code): 507 Abbott Street, Salinas, California 93901

FOR OFFICIAL USE ONLY
PVPO NUMBER: 9900348
VARIETY NAME: North Star
EXPERIMENTAL DESIGNATION: Exp. 669.96

Place numbers in the boxes for the characters which best describe this variety. Measured data should be the mean of an appropriate number (at least 10) of well spaced plants. Royal Horticultural Society or any recognized color standard may be used to determine plant colors.

The location of the test area is: King City, California

Color System Used: Royal Horticultural Society

1. PLANT TYPE: *(See list of suggested check varieties page 4.)*

[0 1]
01=Cutting/Leaf; 02=Butterhead; 03=Bibb; 04=Cos or Romaine; 05=Great Lakes Group; 06=Vanguard Group; 07=Imperial Group; 08=Eastern (Ithaca) Group; 09=Stem; 10=Latin; 11=OTHER-

2. SEED:

COLOR: [2] 1=White (Silver Gray); 2=Black (Gray Brown); 3=Brown (Amber)

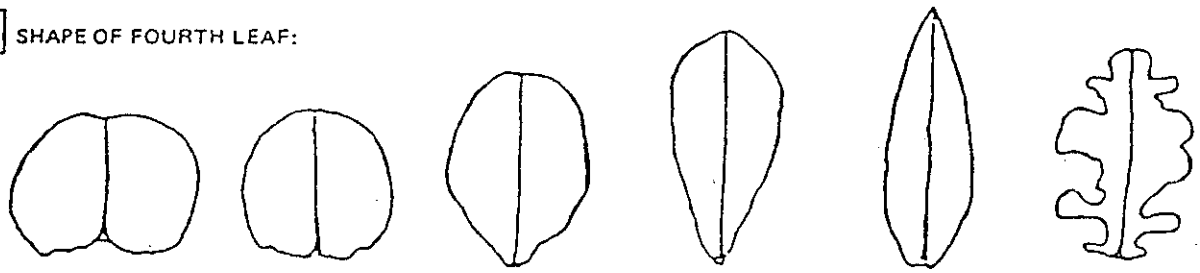
LIGHT DORMANCY: [1] 1=Light Required; 2=Light Not Required

HEAT DORMANCY: [1] 1=Susceptible; 2=Not Susceptible

3. COTYLEDON TO FOURTH LEAF STAGE: NOTE: Provide a color photograph or photocopy of the fourth leaf from 20 day old seedling grown under optimal conditions.

[2] SHAPE OF COTYLEDONS: 1=Broad; 2=Intermediate; 3=Spatulate

[3] SHAPE OF FOURTH LEAF:



1 2 3 4 5 6

[1 6] LENGTH/WIDTH INDEX OF FOURTH LEAF: L/W x 10

[3] APICAL MARGIN: } [4] BASAL MARGIN: } 1=Entire; 2=Creanate/Gnawed; 3=Finely Dentate; 4=Moderately Dentate; 5=Coarsely Dentate; 6=Incised; 7=Lobed; 8=OTHER *(specify)*

[3] UNDULATION: 1=Flat; 2=Slight; 3=Medium; 4=Marked

[3] GREEN COLOR: 1=Yellow Green; 2=Light Green; 3=Medium Green; 4=Dark Green; 5=Blue Green; 6=Silver Green; 7=Gray Green

ANTHOCYANIN:

[1] DISTRIBUTION: 1=Absent; 2=Margin Only; 3=Spotted; 4=Throughout; 5=OTHER *(specify)*

[0] CONCENTRATION: 1=Light; 2=Moderate; 3=Intense

[2] ROLLING: 1=Absent; 2=Present

[2] CUPPING: 1=Uncupped; 2=Slight; 3=Markedly

12 [1] REFLEXING: 1=None; 2=Apical Margin; 3=Lateral Margins

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4. MATURE LEAVES *(observe harvest-mature outer leaves)*:

NOTE: Provide color photo of harvest-mature leaves which accurately shows color and margin characteristics.

MARGIN:

[3]	INCISION DEPTH: *(deepest penetration of the margin)*	1=Absent/Shallow (Dark Green Boston)	2=Moderate (Vanguard)	3=Deep (Great Lakes 659)
[3]	INDENTATION: *(finest divisions of the margin)*	1=Entire (Dark Green Boston) 2=Shallowly Dentate (Great Lakes 65)	3=Deeply Dentate (Great Lakes 659) 4=Crenate (Vanguard)	5=OTHER *(specify)*
[3]	UNDULATION OF THE APICAL MARGIN:	1=Absent/Slight (Dark Green Boston)	2=Moderate (Vanguard)	3=Strong (Great Lakes 659)
[3]	GREEN COLOR:	1=Very Light Green (Bibb) 2=Light Green (Minetto)	3=Medium Green (Great Lakes) 4=Dark Green (Vanguard)	5=Very Dark Green 6=OTHER

ANTHOCYANIN *(grown at or below 10 C)*:

[1]	DISTRIBUTION:	1=Absent 2=Margin Only (Big Boston)	3=Spotted (Calif. Cream Butter) 4=Throughout (Prize Head)	5=OTHER *(specify)*
[0]	CONCENTRATION:	1=Light (Iceberg)	2=Moderate (Prize Head)	3=Intense (Ruby)
[2]	SIZE:	1=Small	2=Medium	3=Large
[3]	GLOSSINESS:	1=Dull (Vanguard)	2=Moderate (Salinas)	3=Glossy (Great Lakes)
[3]	BLISTERING:	1=Absent/Slight (Salinas)	2=Moderate (Vanguard)	3=Strong (Prize Head)
[3]	LEAF THICKNESS:	1=Thin	2=Intermediate	3=Thick
[1]	TRICHOMES:	1=Absent (smooth)	2=Present (spiny)	

5. PLANT *(at market stage. Choose a comparison variety appropriate for this type.)*:

SPREAD OF FRAME LEAVES:
[4][2] cm This Variety [4][0] cm Ventana *(specify comparison variety)*

HEAD DIAMETER *(market trimmed with single cap leaf)*:
[ ][ ] cm This Variety [ ][ ] cm _____ *(specify comparison variety)*

[5]	HEAD SHAPE:	1=Flattened 2=Slightly Flattened	3=Spherical 4=Elongate	5=Non-Heading 6=OTHER
[ ]	HEAD SIZE CLASS:	1=Small	2=Medium	3=Large

[2][4] HEAD COUNT PER CARTON

HEAD WEIGHT:
[4][8][6] g This Variety [ ][4][4][7] g Ventana *(specify comparison variety)*

[1]	HEAD FIRMNESS:	1=Loose 2=Moderate	3=Firm 4=Very Firm

6. BUTT *(bottom of market-trimmed head)*:

[2]	SHAPE:	1=Slightly Concave	2=Flat	3=Rounded
[2]	MIDRIB:	1=Flattened (Salinas)	2=Moderately Raised	3=Prominently Raised (Great Lakes 659)

7. CORE *(stem of market-trimmed head)*:

[3][8] mm Diameter at base of head

[ ][ ].[ ] Ratio of head diameter/core diameter

Core height from base of head to apex:
[7][6] mm This Variety [6][9] mm Ventana *(specify comparison variety)*

8. BOLTING *(Give First Water Date 4/28/97)*: NOTE: First Water Date is the date seed first receives adequate moisture to germinate. This can and often does equal the planting date.

Number of days from First Water Date to seed stalk emergence *(summer conditions)*:
[ ][6][2] This Variety [ ][6][2] Ventana *(specify comparison variety)*

[2]	BOLTING CLASS:	1=Very Slow 2=Slow	3=Medium 4=Rapid	5=Very Rapid

Height of mature seed stalk:
[1][2][0] cm This Variety [1][1][6] cm Ventana *(specify comparison variety)*

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BOLTING cont'd. on next page

Spread of Bolter Plant *(at widest point)*:

[3][2] cm This Variety [3][0] cm Ventana *(specify comparison variety)*

[2] BOLTER LEAVES: 1=Straight 2=Curved

[2] MARGIN: 1=Entire 2=Dentate

[2] COLOR: 1=Light Green 2=Medium Green 3=Dark Green

BOLTER HABIT:

[2] TERMINAL INFLORESCENCE: 1=Absent 2=Present

[1] LATERAL SHOOTS: *(above head)* 1=Absent 2=Present

[2] BASAL SIDE SHOOTS: 1=Absent 2=Present

9. MATURITY *(earliness of harvest-mature head formation)*:

NOTE: Complete this section for at least one season.

SEASON	Applic. 1/ #of days	Check 1/ #of days	CHECK VARIETY 2/
Spring	77	76	Ventana
Summer	62	62	Ventana
Fall	60	60	Ventana
Winter			not adapted

Give planting date(s), and location(s):

Spring 02-14-97 . 04-28-97 Gonzales, California

Summer 05-20-98 . 07-17-98 King City, California

Fall 07-03-98 08-28-98 Chualar, California

Winter

1/ First water date to harvest. 2/ Fill in check variety name on the appropriate line.

10. ADAPTATION:

PRIMARY REGIONS OF ADAPTION *(tested and proven adapted)*: (0=Not tested 1=Not Adapted 2=Adapted)

[2] Southwest *(Calif., Ariz. desert)* [2] West Coast [0] Northeast

[0] Northcentral [0] Southeast [0] OTHER

SEASON:

[2] Spring (area Southwest) [2] Fall (area West Coast, USA)

[2] Summer (area West Coast, USA) [0] Winter (area)

[0] GREENHOUSE: 0=Not tested 1=Not Adapted 2=Adapted

[3] SOIL TYPE: 1=Mineral 2=Organic 3=Both

11. DISEASES AND STRESS REACTIONS (0=Not tested; 1=Susceptible; 2=Intermediate; 3=Resistant; 4=Highly resistant; 5=Tolerant)

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VIRUS

- [1] Big Vein
- [1] Lettuce Mosaic
- [0] Cucumber Mosaic
- [0] Broad Bean Wilt
- [0] Turnip Mosaic
- [0] Beet Western Yellows
- [0] Lett. Infectious Yellows
- [0] Other Virus _____

FUNGAL/BACTERIAL

- [4] Corky Root Rot (Pythium Root Rot)
- [1] Downy Mildew (Races III, IV)
- [0] Powdery Mildew
- [0] Sclerotinia Rot
- [0] Bacterial Soft Rot (Pseudomonas spp. & others)
- [0] Botrytis (Gray Mold)
- [0] OTHER _____

INSECTS

- [0] Cabbage Loopers
- [0] Root Aphids
- [0] Green Peach Aphid
- [0] Other Insect _____

PHYSIOLOGICAL/STRESS

- [3] Tipburn
- [3] Heat
- [0] Drought
- [0] Cold
- [0] Salt
- [0] Brown Rib (Rib Discoloration, Rib Blight)
- [0] OTHER _____

POST HARVEST

- [0] Pink Rib
- [0] Russet Spotting
- [0] Rusty Brown Discoloration
- [0] Internal Rib Necrosis (Blackheart, Gray Rib, Gray Streak)
- [0] Brown Stain

12. BIOCHEMICAL OR ELECTROPHORETIC MARKERS:

13. COMMENTS:

SUGGESTED CHECK VARIETIES

TYPE	CHECK VARIETY
1) CUTTING/LEAF	SALAD BOWL
2) BUTTERHEAD	DARK GREEN BOSTON
3) BIBB	BIBB
4) COS, OR ROMAINE	PARRIS ISLAND
5) GREAT LAKES GROUP	GREAT LAKES 659-700
6) VANGUARD GROUP	VANGUARD
7) IMPERIAL GROUP	VIVA
8) EASTERN GROUP	ITHACA
9) STEM	CELTUCE
10) LATIN	MATCHLESS

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Leaf Margin 20 day old seedling

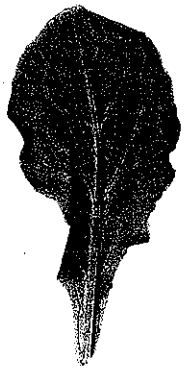
Paragon Seed, Inc.

Green Leaf Lettuce

Ventana

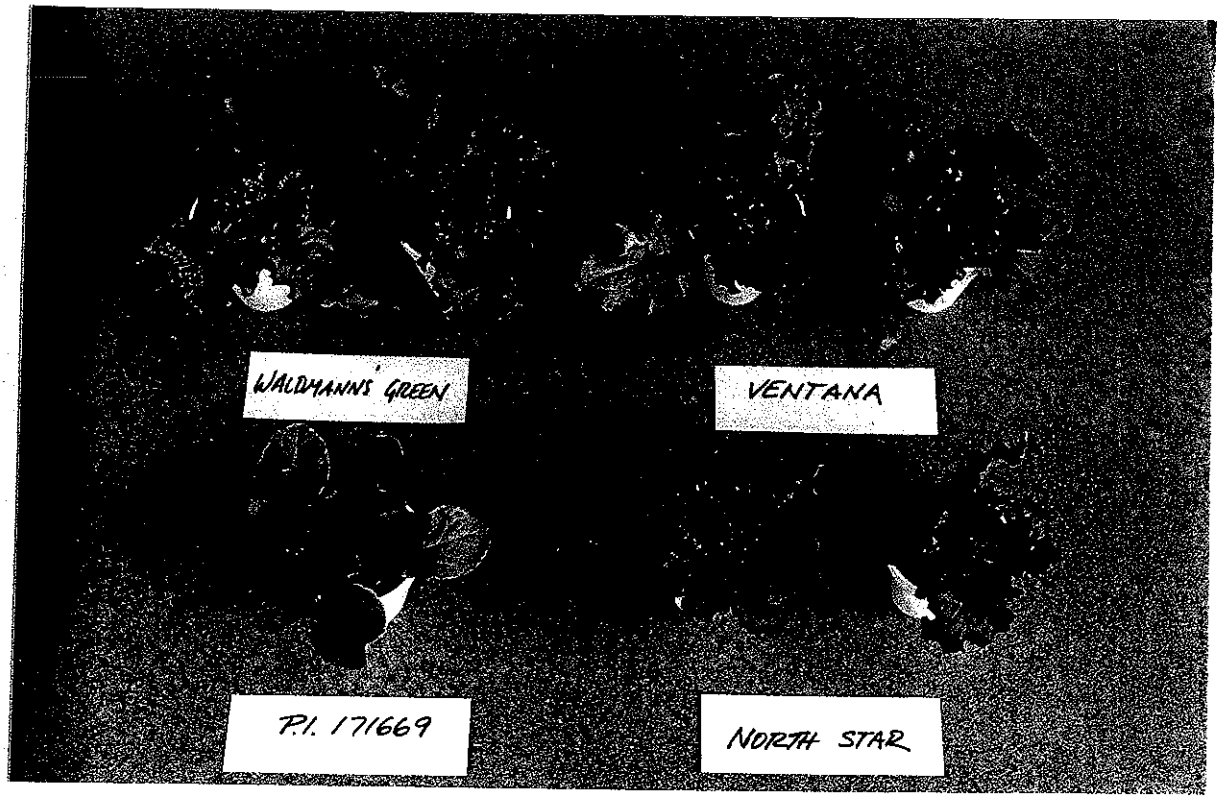
Waldmann's Green

North Star



PI 171669

North Star Leaf Margin Comparison *Paragon Seed, Inc.*



99003 · 8

PARAGON SEED COMPANY

P.O. Box 1906 Salinas, Ca. 93902 408-753-2100

Varieties 171669-54 vs 191669-69

Grown on Costa Farms. Chualar, Ca. Harvest date-: 08-12-98

	171669 69	171669 54	171669 69	171669 54	171669 69	171669 54	171669 69	171669 54
	Spread	Spread	Height	Height	Weight	Weight	Core Ht	Core Ht
Count	24	24	24	24	24	24	24	24
Sum	800.5	774.5	541.5	529.5	11,687.0	10,736.0	71.75	66.00
Mean	33.35	32.27	22.56	22.06	486.96	447.33	2.99	2.75
Maximum Value	36.0	35.0	24.5	24.0	617.0	545.0	4.00	3.50
Minimum Value	30.5	29.5	21.0	19.0	299.0	349.0	2.00	2.00
Variance	1.51	2.22	0.96	1.25	4,644.22	3,667.01	0.13	0.20
Std.Dev	1.23	1.49	0.98	1.12	68.15	60.56	0.36	0.44
Joint Variance	*****	1.86	*****	1.10	*****	4,155.62	*****	0.16
Jt Deg of Freedom	*****	46	*****	46	*****	46	*****	46.00
t-Test Parameter	*****	2.749	*****	1.648	*****	2.129	*****	2.06
Level of Significance	*****	0.0085	*****	0.1062	*****	0.0386	*****	0.0446
Confidence Level %	*****	99.149	*****	89.383	*****	96.139	*****	95.54
	cm's	cm's	cm's	cm's	Grams	Grams	Inches	Inches
MEASUREMENTS FOR SAMPLES	33.0	33.0	24.5	23.0	458	472	4.00	2.25
	33.0	34.0	22.0	22.0	481	545	3.00	3.50
	33.0	33.0	22.5	22.5	544	540	3.00	2.50
	35.0	31.0	21.0	23.0	517	454	3.00	3.00
Solidity measured on a scale of 1 to 5	33.5	31.0	22.0	23.0	475	475	3.00	2.00
	33.0	31.0	23.0	23.0	494	422	3.00	3.00
	30.5	34.0	22.0	21.0	503	485	2.50	2.50
	34.5	32.0	21.5	24.0	460	417	3.00	3.00
	33.0	35.0	23.0	22.0	617	508	3.25	3.00
	33.0	31.0	24.0	21.0	585	376	3.00	2.75
	34.0	33.0	23.0	22.0	540	422	3.00	3.00
	34.0	30.0	23.0	19.0	440	354	3.00	2.00
	36.0	31.0	24.0	22.5	499	425	3.00	3.00
	34.0	32.0	22.0	24.0	299	485	2.00	3.00
	33.0	32.0	24.0	22.0	508	508	3.00	3.00
	32.5	33.0	23.0	22.0	510	354	3.00	2.50
	34.0	32.5	21.0	23.0	394	363	3.00	2.00
	32.5	33.0	23.0	22.0	599	405	3.25	3.50
	32.0	34.0	22.0	22.0	395	499	3.00	2.50
	32.0	31.0	22.0	21.0	482	463	2.50	3.25
	33.5	34.0	23.0	21.0	454	499	3.50	3.00
	36.0	34.0	23.0	22.0	494	508	3.00	3.00
	32.5	29.5	21.0	22.0	494	349	3.00	2.50
	33.0	30.5	22.0	20.5	445	408	2.75	2.25

Note: The Level of Significance is determined by using Excel 5's 2-tail type 2 built in T-test function directly over the ranges of data.

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PARAGON SEED COMPANY

P.O. Box 1906 Salinas, Ca. 93902 408-753-2105

Varieties 171669-69 vs Two Star

Grown on Wildhorse Ranch, King City, Ca. **Harvest date-: 08-25-98**

	Two Star	171669 69	Two Star	171669 69	Two Star	171669 69	Two Star	171669 69
	Spread	Spread	Height	Height	Weight	Weight	Core Ht	Core Ht
Count	24	24	24	24	24	24	24	24
Sum	783.0	753.5	585.0	486.0	8,075.0	9,674.0	31.50	38.50
Mean	32.63	31.40	24.38	20.25	336.46	403.08	1.31	1.60
Maximum Value	39.0	33.0	28.0	22.0	622.0	457.0	2.00	2.00
Minimum Value	24.0	30.0	18.0	19.0	131.0	329.0	1.00	1.25
Variance	9.31	0.93	4.94	0.48	10,333.91	1,348.43	0.09	0.05
Std.Dev	3.05	0.97	2.22	0.69	101.66	36.72	0.31	0.23
Joint Variance	*****	5.12	*****	2.71	*****	5,841.17	*****	0.07
Jt Deg of Freedom	*****	46	*****	46	*****	46	*****	46.00
t-Test Parameter	*****	1.881	*****	8.681	*****	3.020	*****	3.72
Level of Significance	*****	0.0663	*****	0.0000	*****	0.0041	*****	0.0005
Confidence Level %	*****	93.374	*****	100.000	*****	99.588	*****	99.95
	cm's	cm's	cm's	cm's	Grams	Grams	Inches	Inches
MEASUREMENTS FOR SAMPLES	31.0	32.0	25.0	21.0	298	440	1.50	1.50
	37.0	31.0	24.0	22.0	390	390	1.50	1.50
	32.0	30.0	23.0	21.0	289	375	1.00	1.50
	35.0	31.0	24.0	21.0	346	346	1.50	1.50
Solidity measured on a scale of 1 to 5	24.0	33.0	18.0	20.0	131	445	1.00	1.50
	33.5	31.0	25.0	19.0	298	329	1.00	2.00
	30.0	33.0	22.0	21.0	274	354	1.50	2.00
	34.5	32.0	22.0	20.0	346	378	1.75	1.75
Note: The Level of Significance is determined by using Excel 5's 2-tail type 2 built in T-test function directly over the ranges of data.	33.0	32.0	27.0	20.0	622	445	1.50	1.50
	39.0	31.0	25.0	20.0	457	457	1.75	1.75
	30.0	32.0	25.0	20.0	289	425	1.00	1.50
	29.0	30.0	22.0	21.0	181	430	1.00	1.50
	36.0	32.0	24.0	20.0	422	422	1.50	2.00
	35.0	31.5	25.0	20.0	276	400	1.00	1.50
	29.0	33.0	22.0	20.0	325	425	1.25	1.25
	33.0	30.0	25.0	20.0	435	435	1.50	2.00
	33.0	32.0	26.0	19.0	263	345	1.00	1.50
	33.0	31.0	28.0	20.0	385	385	1.50	1.50
	31.0	32.0	28.0	20.5	281	400	1.00	1.50
	33.0	31.0	24.0	21.0	249	389	1.00	1.50
	33.0	30.0	23.0	20.0	289	375	1.00	1.50
	34.0	32.0	26.0	19.5	450	450	2.00	2.00
	31.0	30.0	26.0	20.0	370	425	1.25	1.25
	34.0	31.0	26.0	20.0	409	409	1.50	1.50

PARAGON SEED COMPANY

P.O. Box 1906 Salinas, Ca. 93902 408-753-2100

Varieties 171669-54 vs 171669-69

Grown on Wildhorse Ranch, King City, Ca. **Harvest date-: 08-25-98**

	171669 54	171669 69	171669 54	171669 69	171669 54	171669 69	171669 54	171669 69
	Spread	Spread	Height	Height	Weight	Weight	Core Ht	Core Ht
Count	24	24	24	24	24	24	24	24
Sum	733.5	753.5	500.5	486.0	9,077.0	9,674.0	34.75	38.50
Mean	30.56	31.40	20.85	20.25	378.21	403.08	1.45	1.60
Maximum Value	34.0	33.0	23.0	22.0	463.0	457.0	2.00	2.00
Minimum Value	27.0	30.0	19.0	19.0	269.0	329.0	1.00	1.25
Variance	3.90	0.93	1.16	0.48	2,871.22	1,348.43	0.13	0.05
Std.Dev	1.97	0.97	1.08	0.69	53.58	36.72	0.36	0.23
Joint Variance	*****	2.42	*****	0.82	*****	2,109.82	*****	0.09
Jt Deg of Freedom	*****	46	*****	46	*****	46	*****	46.00
t-Test Parameter	*****	1.857	*****	2.311	*****	1.876	*****	1.78
Level of Significance	*****	0.0697	*****	0.0254	*****	0.0670	*****	0.0811
Confidence Level %	*****	93.030	*****	97.461	*****	93.299	*****	91.89
	cm's	cm's	cm's	cm's	Grams	Grams	Inches	Inches
MEASUREMENTS FOR SAMPLES	34.0	32.0	20.0	21.0	409	440	1.50	1.50
	29.0	31.0	20.5	22.0	269	390	1.00	1.50
	28.5	30.0	20.0	21.0	322	375	1.00	1.50
	28.0	31.0	20.0	21.0	320	346	1.00	1.50
Solidity measured on a scale of 1 to 5	29.0	33.0	21.0	20.0	335	445	1.25	1.50
	29.0	31.0	21.0	19.0	423	329	1.50	2.00
	29.0	33.0	22.0	21.0	363	354	1.50	2.00
	30.0	32.0	21.0	20.0	408	378	1.50	1.75
	30.0	32.0	23.0	20.0	463	445	2.00	1.50
	30.0	31.0	20.0	20.0	410	457	1.50	1.75
	30.0	32.0	19.0	20.0	349	425	1.50	1.50
	31.0	30.0	21.0	21.0	433	430	2.00	1.50
	31.0	32.0	20.0	20.0	366	422	1.00	2.00
	33.0	31.5	22.0	20.0	440	400	2.00	1.50
	27.0	33.0	21.0	20.0	360	425	1.50	1.25
	32.0	30.0	21.0	20.0	410	435	1.50	2.00
	34.0	32.0	20.0	19.0	400	345	1.50	1.50
	30.0	31.0	23.0	20.0	405	385	2.00	1.50
	32.0	32.0	21.0	20.5	342	400	1.00	1.50
	30.0	31.0	20.0	21.0	303	389	1.00	1.50
	33.0	30.0	21.0	20.0	366	375	1.50	1.50
	34.0	32.0	23.0	19.5	448	450	1.50	2.00
	31.0	30.0	20.0	20.0	440	425	2.00	1.25
	29.0	31.0	20.0	20.0	293	409	1.00	1.50

Note: The Level of Significance is determined by using Excel 6's 2-tail type 2 built in T-test function directly over the ranges of data.

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PARAGON SEED COMPANY

P.O. Box 1906 Salinas, Ca. 93902 831-753-2100

North Star vs Ventana

Grown on Steinbeck Ranch Salinas, Ca. **Harvest date : 08-28-98**

	North Star Spread	Ventana Spread	North Star Height	Ventana Height	North Star Weight	Ventana Weight	North Star Core Ht	Ventana Core Ht
Count	24	24	24	24	24	24	24	24
Sum	802.0	787.0	540.0	525.5	9,798.0	8,631.0	44.25	36.25
Mean	33.42	32.79	22.50	21.90	408.25	359.63	1.84	1.51
Maximum Value	36.0	38.0	24.0	24.0	476.0	454.0	2.50	2.00
Minimum Value	32.5	29.0	21.0	20.0	346.0	254.0	1.25	1.00
Variance	0.56	4.67	0.61	1.22	1,116.28	4,116.51	0.10	0.10
Std.Dev	0.75	2.16	0.78	1.10	33.41	64.16	0.32	0.32
Joint Variance	*****	2.62	*****	0.91	*****	2,616.39	*****	0.10
Jt Deg of Freedom	*****	46	*****	46	*****	46	*****	46.00
t-Test Parameter	*****	1.339	*****	2.191	*****	3.293	*****	3.63
Level of Significance	*****	.1872	*****	.0336	*****	.0019	*****	.0007
Confidence Level %	*****	81.280	*****	96.641	*****	99.809	*****	99.93
	cm's	cm's	cm's	cm's	Grams	Grams	Inches	Inches
MEASUREMENTS FOR SAMPLES	33.0	34.0	24.0	23.0	425	381	2.50	2.00
	34.0	33.0	23.0	23.0	420	399	2.50	1.50
	34.0	33.0	22.0	21.0	439	290	2.00	1.25
	34.0	31.0	22.0	21.0	386	258	1.75	1.00
Solidity measured on a scale of 1 to 5	33.0	29.0	23.0	22.0	359	334	1.50	1.00
	34.0	32.0	21.0	20.0	346	272	1.25	1.50
	33.5	34.0	22.5	22.0	429	450	2.00	2.00
	33.5	32.0	21.0	21.0	410	335	2.00	1.50
Note: The Level of Significance is determined by using Excel 5's 2-tail type 2 built in T-test function directly over the ranges of data	34.0	34.0	22.5	21.0	442	394	1.75	1.50
	33.0	34.0	22.5	21.0	389	368	1.50	1.50
	33.5	33.0	22.0	23.0	411	436	2.00	2.00
	33.0	31.5	21.5	23.0	450	386	2.00	1.50
	32.5	30.0	22.0	21.5	408	318	2.00	1.50
	32.5	32.0	23.0	21.0	423	254	2.25	1.00
	33.0	30.0	23.0	23.0	389	270	1.50	1.50
	33.5	30.0	23.0	24.0	439	336	1.50	1.50
	34.0	32.0	22.5	23.0	401	450	1.50	2.00
	33.0	35.0	22.0	21.0	436	399	2.00	1.50
	36.0	32.0	22.5	21.0	420	385	1.75	1.50
	32.5	33.0	23.0	22.0	349	300	1.50	1.50
	33.0	38.0	22.5	24.0	386	454	1.75	1.50
	33.5	33.0	23.5	21.0	409	336	2.00	1.50
	33.0	37.5	24.0	22.0	476	445	2.00	2.00
	33.0	34.0	22.0	21.0	356	381	1.75	1.00

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PARAGON SEED COMPANY

P.O. Box 1906, Salinas, Ca. 93902 - 831-753-2100

North Star vs Ventana

Grown on Daly Ranch Yuma, Arizona **Harvest date : 03/10/99**

	North Star Spread	Ventana Spread	North Star Height	Ventana Height	North Star Weight	Ventana Weight	North Star Core Ht	Ventana Core Ht
Count	24	24	24	24	24	24	24	24
Sum	754.5	703.5	537.0	526.0	11,652.0	10,963.0	63.00	60.75
Mean	31.44	29.31	22.38	21.92	485.50	456.79	2.63	2.53
Maximum Value	32.5	32.0	23.5	24.0	515.0	495.0	3.00	3.00
Minimum Value	29.5	3.5	20.5	21.0	452.0	422.0	2.00	2.00
Variance	0.51	31.00	0.53	0.58	214.87	330.69	0.08	0.09
Std.Dev	0.71	5.57	0.73	0.76	14.66	18.18	0.29	0.30
Joint Variance	*****	15.75	*****	0.55	*****	272.78	*****	0.09
Jt Deg of Freedom	*****	46	*****	46	*****	46	*****	46.00
t-Test Parameter	*****	1.855	*****	2.134	*****	6.021	*****	1.11
Level of Significance	*****	.0700	*****	.0382	*****	.0000	*****	.2713
Confidence Level %	*****	92.996	*****	96.181	*****	100.000	*****	72.87
	Frame		Height		Weight		Core	
	cm's	cm's	cm's	cm's	Grams	Grams	Inches	Inches
MEASUREMENTS FOR SAMPLES	32.0	31.0	23.0	24.0	468	452	3.00	2.50
	32.5	29.0	23.5	21.0	515	438	2.75	2.50
	31.0	29.5	22.0	21.5	480	445	2.50	2.00
	32.0	30.0	23.5	23.0	475	450	2.50	2.50
Solidity measured on a scale of 1 to 5	31.5	30.5	23.0	22.5	468	460	2.50	2.75
	32.0	30.0	23.0	21.0	485	475	3.00	2.50
	32.0	29.0	22.5	22.5	489	435	3.00	2.50
	32.0	31.0	23.0	22.0	502	475	3.00	2.75
Note: The Level of Significance is determined by using Excel 5's 2-tail type 2 built in T-test function directly over the ranges of data.	31.5	29.5	22.5	22.5	487	425	2.75	2.00
	30.5	30.0	21.0	22.0	476	468	2.50	2.50
	31.0	30.0	22.0	21.5	492	452	2.50	2.50
	32.0	31.0	22.5	22.0	510	478	3.00	2.50
	32.5	30.5	23.0	22.5	487	445	3.00	2.50
	29.5	31.0	20.5	22.0	452	472	2.00	2.75
	31.0	29.5	22.0	22.5	468	448	2.50	2.00
	32.0	30.0	23.0	21.0	500	438	2.50	2.50
	31.5	32.0	22.5	22.0	482	465	2.75	2.75
	30.5	29.5	22.0	21.5	492	422	2.50	2.00
	31.0	31.0	22.5	22.5	476	468	2.50	3.00
	31.0	31.5	22.0	21.0	490	452	2.50	3.00
	32.0	32.0	22.5	22.0	505	495	2.50	3.00
	31.5	31.5	21.5	21.5	487	458	2.75	2.75
	31.0	31.0	22.0	21.0	476	469	2.50	2.50
	31.0	3.5	22.0	21.0	490	478	2.00	2.50

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PARAGON SEED COMPANY

P.O. Box 1906, Salinas, Ca. 93902 831-753-2100

Comparison of Spread of Frame Leaves : Ventana / North Star / Shining Star

Grown on Sargenti Ranch, Salinas, Ca. **Harvest date-: July 30, 1998**

	Ventana	North Star	Ventana	Shining Star	Shining Star	North Star		
Count	24	24	24	24	24	24		
Sum	378.5	396.0	378.5	429.0	429.0	396.0		
Mean	15.77	16.50	15.77	17.88	17.88	16.50		
Maximum Value	17.0	17.5	17.0	18.5	18.5	17.5		
Minimum Value	15.0	15.5	15.0	16.5	16.5	15.5		
Variance	0.33	0.22	0.33	0.24	0.24	0.22		
Std.Dev	0.57	0.47	0.57	0.49	0.49	0.47		
Joint Variance	*****	0.27	*****	0.29	*****	0.23		
Jt Deg of Freedom	*****	17	*****	46	*****	46		
t-Test Parameter	*****	4.848	*****	13.651	*****	9.911		
Level of Significance	*****	0.0000	*****	0.0000	*****	0.0000		
Confidence Level %	*****	99.999	*****	100.000	*****	100.000		
	in.	in	in	in	in	in		
MEASUREMENTS FOR SAMPLES	16.0	16.5	16.0	18.0	18	17		
	16.5	16.0	16.5	17.5	18	16		
	15.0	16.5	15.0	18.0	18	17		
	15.5	17.0	15.5	18.5	19	17		
Solidity measured on a scale of 1 to 5	17.0	17.0	17.0	18.0	18	17		
	16.0	16.5	16.0	17.5	18	17		
	16.5	16.0	16.5	18.0	18	16		
	15.5	16.5	15.5	18.5	19	17		
Note: The Level of Significance is determined by using Excel 5's 2-tail type 2 built in T-test function directly over the ranges of data.	16.0	15.5	16.0	18.0	18	16		
	16.0	17.0	16.0	17.5	18	17		
	15.5	16.5	15.5	16.5	17	17		
	16.0	16.5	16.0	18.0	18	17		
	16.0	16.5	16.0	18.5	19	17		
	16.0	17.0	16.0	18.0	18	17		
	15.0	16.0	15.0	18.5	19	16		
	15.5	16.0	15.5	18.0	18	16		
	15.0	16.5	15.0	17.5	18	17		
	16.0	17.0	16.0	18.0	18	17		
	16.5	16.0	16.5	18.5	19	16		
	15.0	16.5	15.0	18.0	18	17		
	16.0	17.0	16.0	17.0	17	17		
	16.0	16.5	16.0	17.5	18	17		
	15.0	17.5	15.0	17.5	18	18		
	15.0	16.0	15.0	18.0	18	16		

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Photographs

1. Ventana (54) left North Star (69) right
2. Seed production Corcoran, California 1998
   North Star (69) left Ventana (54) right
3. Butt Appearance Steinbeck Ranch, Salinas, Ca.
4. Leaf Margin comparison Ventana (54) vs North Star(69)
5. Leaf Margin "Desert Green"
6. Trial entries Steinbeck Ranch, Salinas, Ca.
7. Cut heads Ventana (54) North Star (69) Shining Star
8. Butt appearance Sargenti Ranch, Chualar, Ca.
9. Butt appearance Sargenti Ranch, Chualar, Ca.
10. Leaf Margin North Star and Root rot resistance
11. Shining Star corky root susceptible
12. Trial Garin Ranch King City, Ca.
13. Trial Garin Ranch King City, Ca.
14. Trial Garin Ranch King City, Ca.
15. Trial Chualar, Ca.
16. North Star spring 1999 cool weather head formation

Paragon Seed, Inc. Corcoran, Ca.. 07/98

171669-5-4 *171669-96*

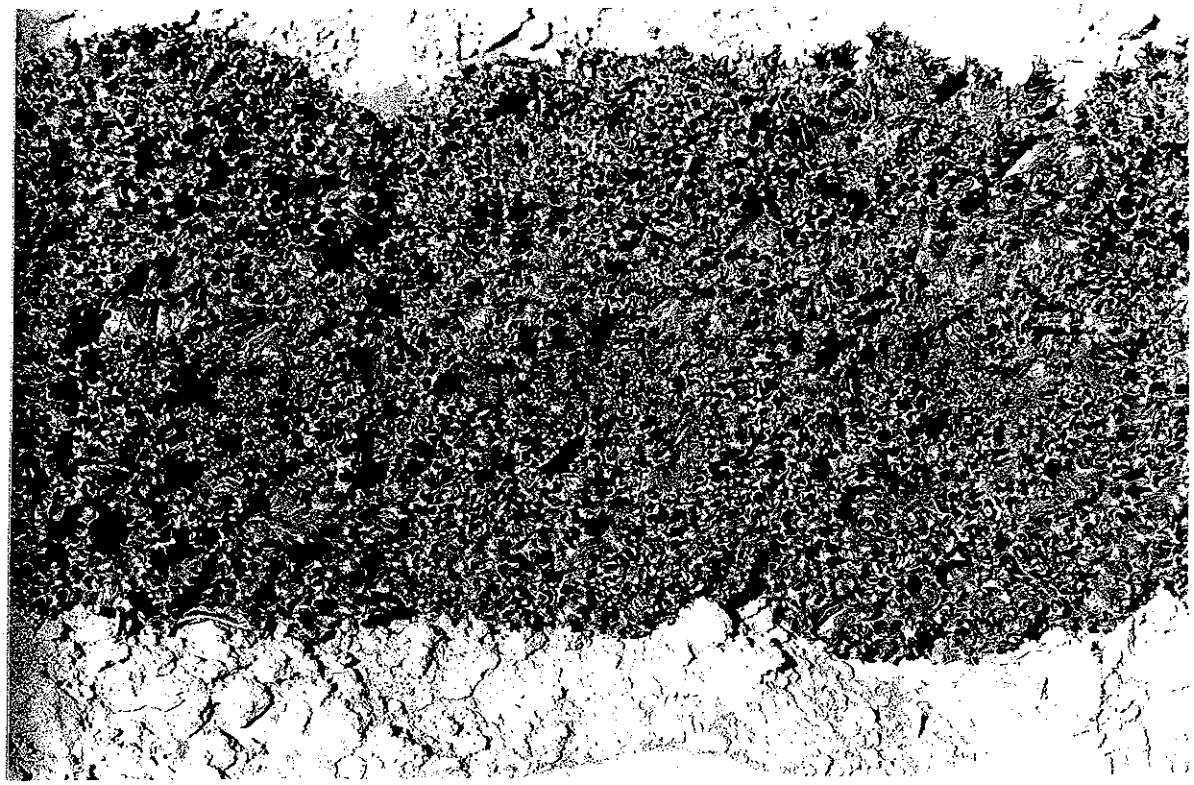
Paragon Seed, Inc. Corcoran, Ca.. 07/98

69-96M 171669-5-4

26

171669-54 *left 3 heads* Desert Green *right 2 heads*

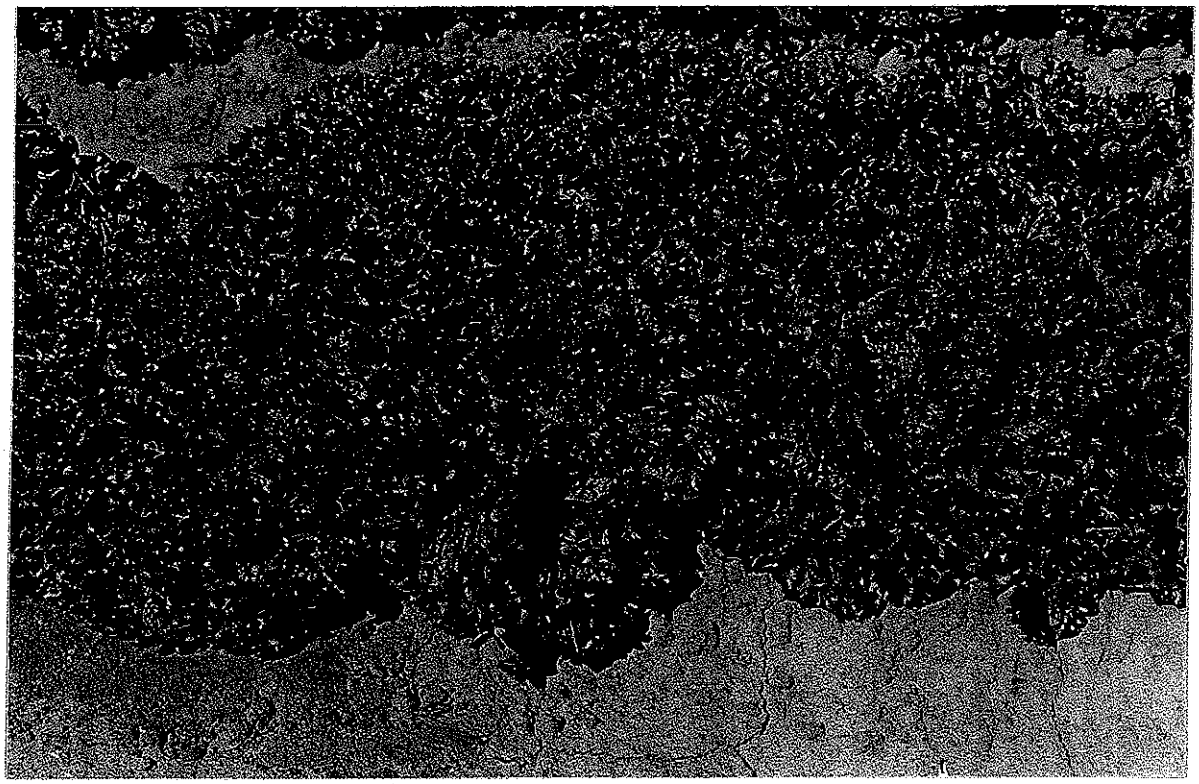
669-96M *left 3 heads* 191669-54 *right 3 heads*



171669-54

669-96M

28



Desert Green

Paragon Seed, Inc. Steinbeck Ranch Salinas, Ca.. 07/98

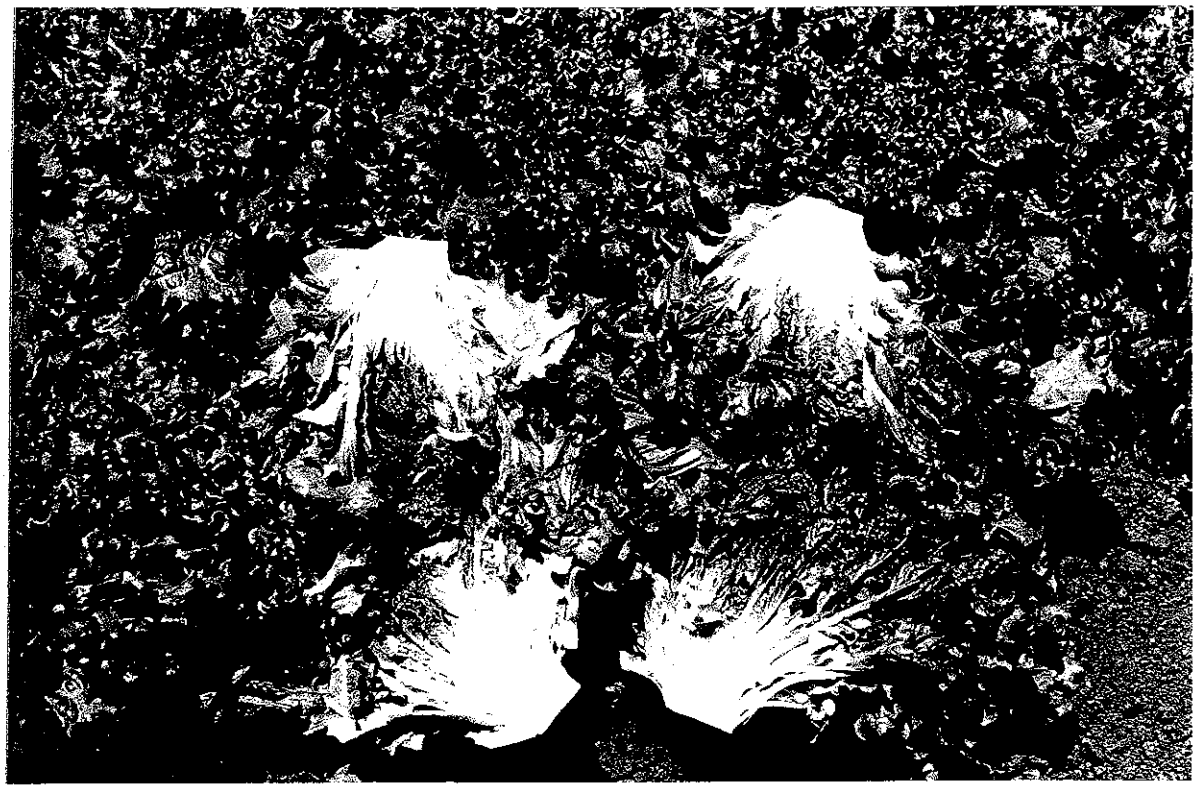
9900?.

2	171669-54	669-96	Krypton	Pybus Green
1	Glossy Green	Green Vision	exp	exp

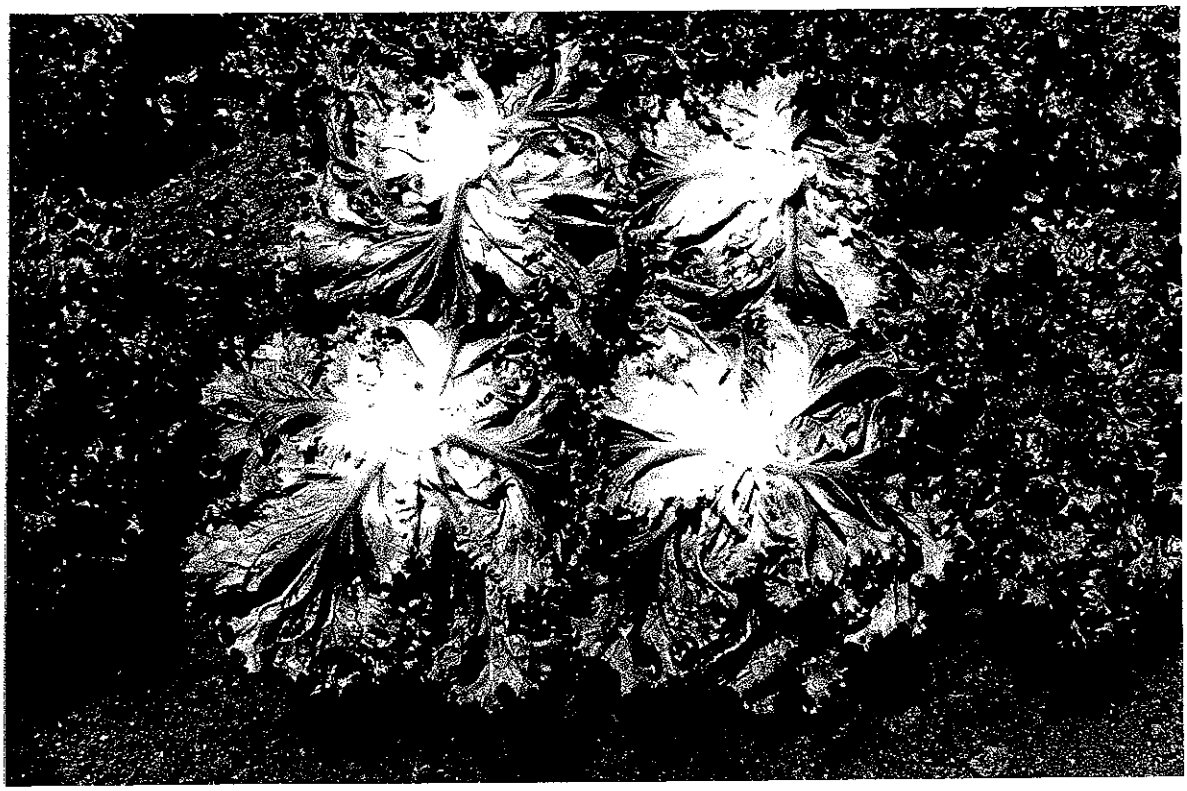
30

Paragon Seed, Inc. Sargenti Ranch, Chualar, Ca. 07/98

17166954-97 Top 669-96M-97 bottom



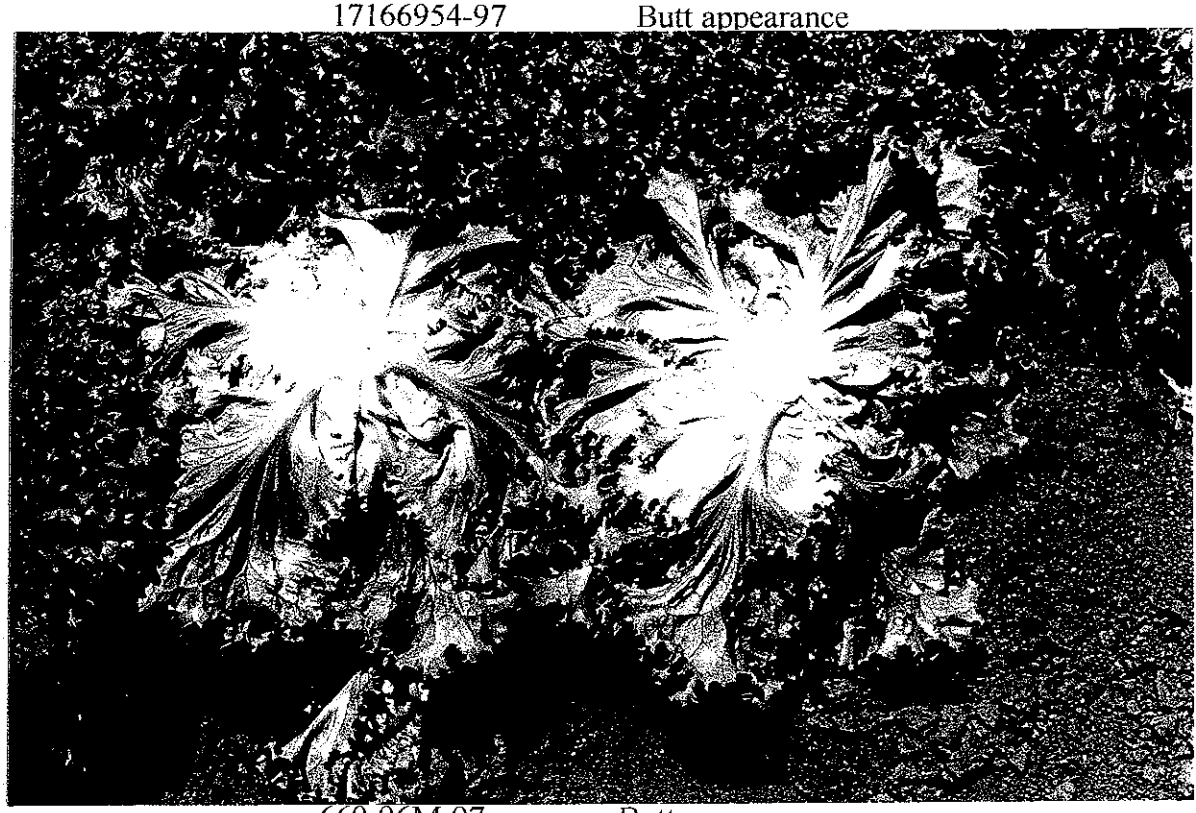
Shining Star



17166954-97 Top 669-96M-97 bottom

Shining Star Butt appearance

17166954-97 Butt appearance

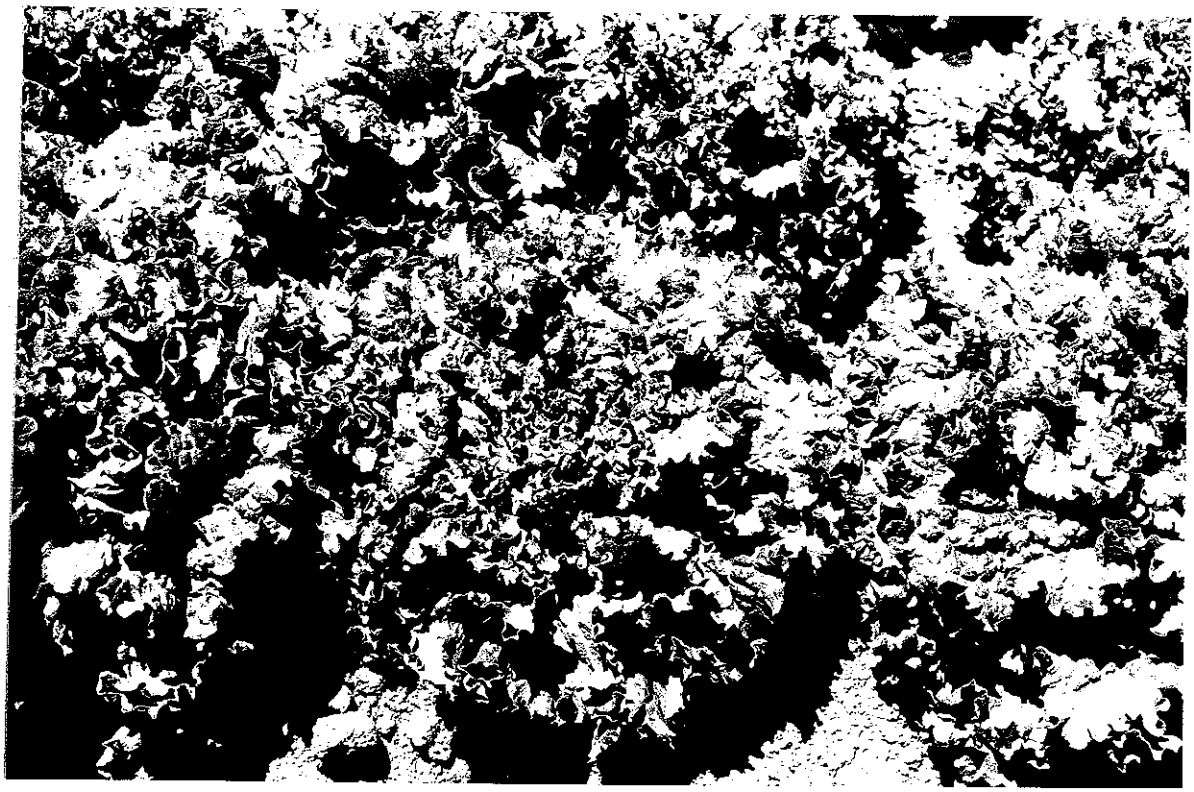


669-96M-97 Butt appearance

669-96M-97

669-96M-97 left-Corky root resistant Shining Star - right

34



Field planting Shining Star

Shining Star Corky root susceptible

Paragon Seed , Inc. Garin Ranch King City, Ca. 07/98

Field 504 Green 669.96M Tiara Genecorp Green Field
Note Sprinkler pipe is between Tiara (dark) and Genecorp Green (pale)

Field 504 Green 669.96M Tiara Genecorp Green Field

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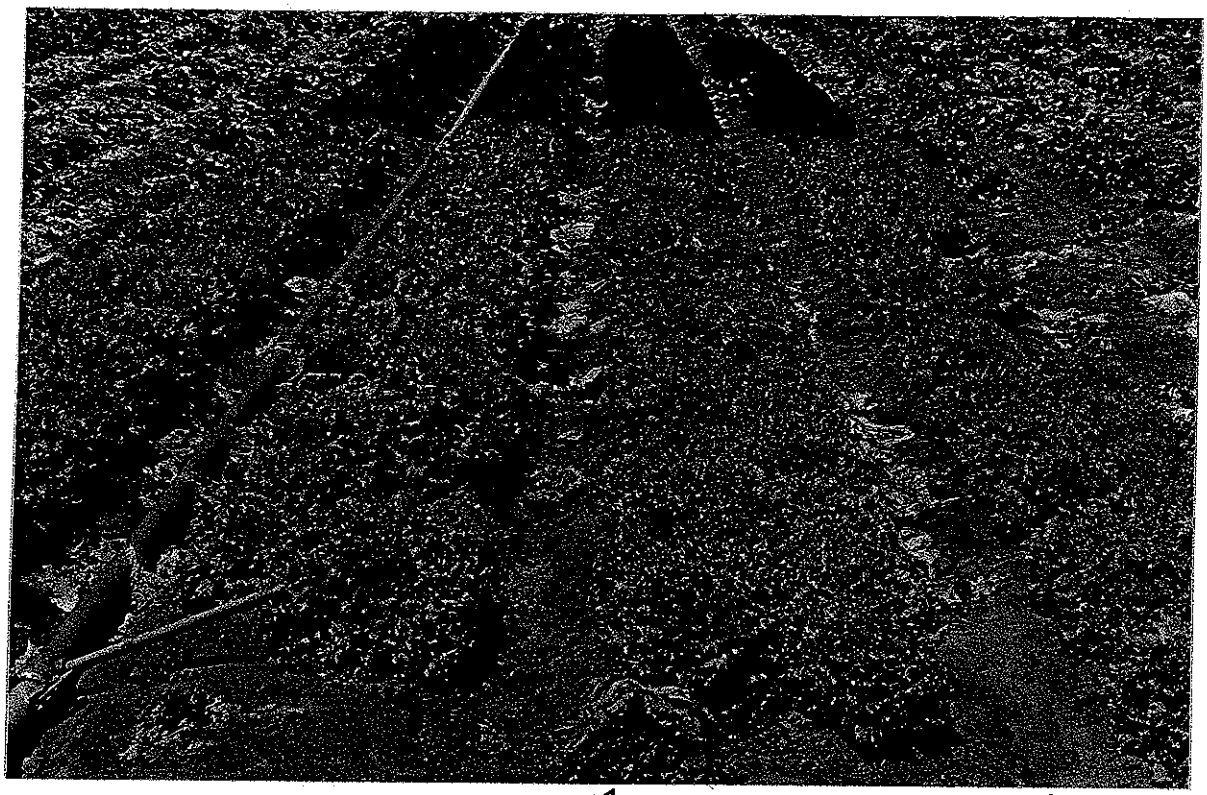
Paragon Seed , Inc. Garin Ranch King City, Ca. 07/98

Field 504 Green 669.96M Tiara Genecorp Green Field
Note Sprinkler pipe is between Tiara (dark) and Genecorp Green (pale)

Paragon Seed , Inc. Garin Ranch King City, Ca. 07/98

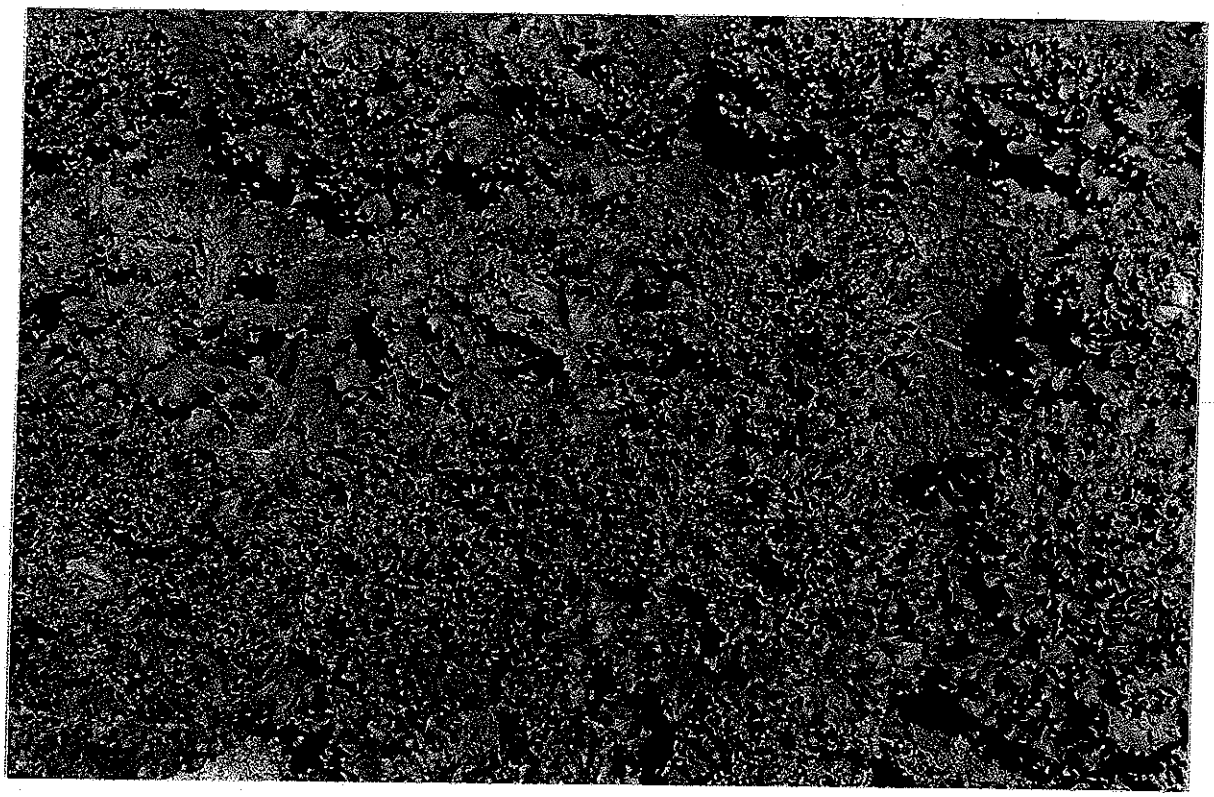
Field 504 Green Genecorp Green Tiara 669.96M Field
Note Sprinkler pipe is between Tiara (dark) and Genecorp Green (pale)

Field 504 Green Genecorp Green Tiara 669.96M Field



exp exp 171669-69 171669-54

Note : heads cut for carton measurements 08/13/98



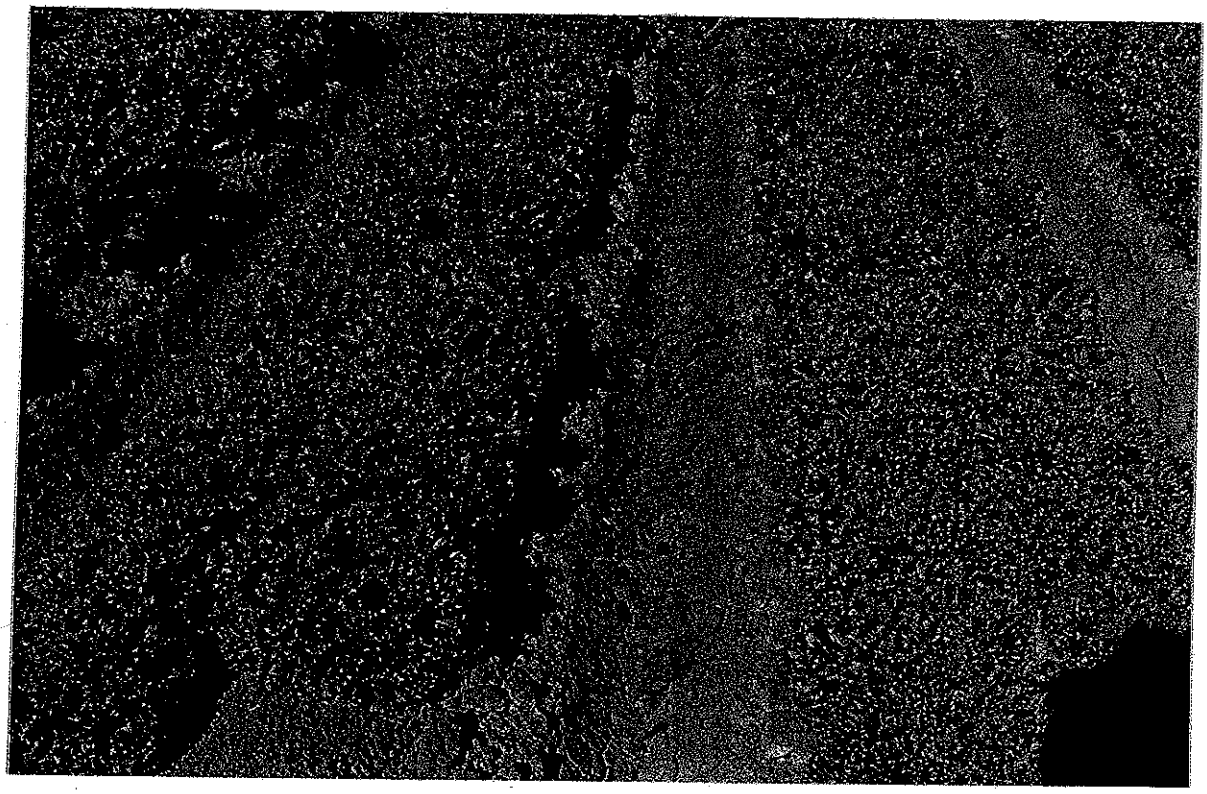
North Star Head formation under cool growing conditions

TEHAMA

TEHAMA VENTANA

9900348

Paragon Seed, Inc. Somerton , Arizona December, 2003



NORTH STAR VENTANA

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Paragon Seed, Inc.	Exp. 669.96	North Star
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	**5. TELEPHONE** *(include area code)*	**6. FAX** *(include area code)*
507 Abbott Street Salinas, California 93901	831-753-2100	831-753-1470
	7. PVPO NUMBER 9900348	

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [x] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? [x] YES [ ] NO
If no, give name of country

10. Is the applicant the original owner? [x] YES [ ] NO *If no, please answer one of the following:*

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

[ ] YES [ ] NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

[ ] YES [ ] NO If no, give name of country

11. Additional explanation on ownership *(if needed, use reverse for extra space)*:

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.